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Dhanapati Adhikari* (dadhikari@marywood.edu), Department of Mathematics, Marywood University, 2300 Adams Avenue, Scranton, PA 18509, and **Jiahong Wu**. *The 2D Boussinesq equations with partial viscous dissipation.*

In this talk we consider the 2D Boussinesq equation with vertical diffusivity and viscosity only in the second equation of the velocity field, namely with $\kappa\theta_{yy}$ and $\nu\Delta v$. We prove that any solution starting with sufficiently smooth initial data remains regular on $[0, T]$, for any $T > 0$. (Received September 21, 2011)